THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:
	: Examiner: Laura L. McGillem
Ernest ARENAS	:
	: Group Art Unit: 1636
Application No. 09/980,913	:
	: **Attorney Docket No: 0380-P02709US0**
Filing Date: May 21, 2002	:
	:
For: MATERIALS AND METHODS RELATING TO NEURONAL DEVELOPMENT	:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENT TO REQUEST FOR CONTINUED EXAMINATION

Dear Sir:

Applicants in the above-identified patent application submit herewith a Declaration of Dr. Paola Sacchetti, by way of supplement to the Request for Continued Examination filed May 29, 2007 in response to the Official Action, dated April 19, 2006. The examiner is respectfully requested to consider the Declaration of Dr. Sacchetti and make it of record in the present application.

The Declaration of Dr. Sacchetti provides evidence to support applicants' position that the 35 USC §103(a) rejection of claims 1-3 and 5-12 over Bowen et al. in view of Takeshima et al. is improper and cannot be maintained.

The Sacchetti Declaration states that the method for inducing dopaminergic neurons developed by the present applicants is a significant achievement in the stem cell field, allowing for induction of higher numbers of such neurons, and as such, is fundamentally different from the method described by Bowen et al., as proposed to be modified in view of the disclosure of

Takeshima et al. The significance of these differences is explained in paragraphs 7-11 of the Sacchetti Declaration. Specifically, Dr. Sacchetti considered the method of Bowen et al. for generating dopaminergic cells, by the induction and endogenous expression in CNS stem cells of *Nurr1*, and determined that Bowen et al. achieved poor results, noting that even if 100% of the cells would be transfected, the totality of TH^+ cells in the culture would be no more than 3.5%. Dr. Sacchetti points out that applicants' method, on the other hand, allows one to obtain 90% TH^+ cells out of the total cells in the culture. See paragraph 8 of the Sacchetti Declaration.

Dr. Sacchetti further states that whereas Takeshima et al. use astrocytes from the ventral midbrain to provide survival promoting factors to already born neurons, Type 1 astrocytes of the ventral mesencephalon are employed in applicants' method to provide midbrain instructive factors to midbrain progenitors with the goal of inducing a dopaminergic fate and guiding progenitors in their development until they give rise to newborn dopamine neurons. See paragraph 9 of Sacchetti Declaration.

In comparison to applicants' method, both Bowen et al. and Takeshima et al. are concerned with the treatment of different cells (progenitors vs. neurons) for a substantially different purpose (promoting the development of progenitors into dopaminergic neurons vs. providing neuronal survival). See paragraphs 10 and 11 the Sacchetti Declaration.

Finally, after comparing the experiments performed by applicants' with those referred to in Bowen et al. and Takeshima et al., the Sacchetti Declaration concludes that there is no suggestion in the disclosures of Bowen et al. and Takeshima et al., considered individually or together, that a Type 1 astrocyte of the ventral mesencephalon could be used to provide an instructive factor to induce a dopaminergic neuronal fate in a neural stem cell or neural progenitor cell. See paragraph 12 of the Sacchetti Declaration.

For the reasons stated in the submission accompanying applicants' Request for Reconsideration filed May 29, 2007, and further in view of the Sacchetti Declaration submitted herewith, it is again respectfully requested that the rejections set forth in the April 29, 2006 Official Action be withdrawn and that this application be passed to issue, and such action is earnestly solicited.

Respectfully submitted,

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